

## CHURCH-BUILDING INTELLIGENCE, &amp;c.

**New Church at Douglas, Isle of Man.**—There will be 500 sittings reserved in this church for the poor. The project originated with a benevolent gentleman, who, during his sojourn on the island, being struck with the want of church accommodation for the poor of the town, voluntarily offered 250*l.* towards the erection of a new church; and another gentleman offered a donation of 200*l.* The bishop, on learning this, gave 250*l.* more, and by some other contributions the sum has swelled to the amount of 800*l.* for the object. —*Cambridge Chronicle.*

**New Church at Brockmoor, Staffordshire.**—The ceremony of laying the first stone took place on the 12th instant, by Lady Ward. All the sittings are to be free. The site of two acres for a churchyard was given by the trustees of the Earl of Dudley, and a sufficient sum from Lord Ward to enable the commissioners to build the parsonage; also 600*l.* from the Committee and Council of the National Society for the schools, on a site purchased by the rector.

**New Church at Lynn.**—The intended new church, we hear, is to be immediately commenced, the committee having accepted the tender of Messrs. Bennett and Son from a number of others. Mr. Salvin has furnished the design. —*Cambridge Chronicle.*

The Marquis of Exeter has given directions for the chancel of St. Mary's Church, Stamford, to be repaired, which is being done in a chaste and costly manner.

## RAILWAY INTELLIGENCE.

**New Railway Schemes.**—The following is from the circular of Messrs. Railton and Sons, share-brokers, Manchester, of the 14th instant:—"There are at the present time plans matured or preparing to carry before the Board of Trade upwards of 90 new schemes for railway extension, requiring a subscribed capital of upwards of 60,000,000*l.*—to which may be added 20,000,000*l.* for the authorised one-third additional to be borrowed. The present abundance and low value of money (there being no foreign attraction more alluring) is highly favourable to the extension of public works at home. No matter to what extent the ripeness of speculation may lead individual adventure, a great national benefit will be secured, available to all, without infringing on the circulation of the country, so long as we continue blessed with a succession of good harvests as the mainpring of prosperity; but should a failure ensue, and we become impoverished by a foreign purchase for the repair, we shall be deprived, in a corresponding degree, of the advantages we now enjoy. Manufactures and foreign trade we can expand or curtail at will, but no art of man can put seasons out of course or alter their result. The Board of Trade has an irksome duty to perform to suit all interests, and keep clear of the confusion to which we are exposed."

**Diss, Beccles, and Yarmouth Railway.**—This line, running from Yarmouth through Beccles, Bungay, Harleston, and Scile to Diss, will afford Yarmouth and the intermediate towns a direct communication with London, being a saving of about 20 miles over any other railway between Yarmouth and London, and a proportionate increased saving between Eastern Suffolk and the south. A railway through Diss to Norwich on the one hand, and the southern district of Suffolk and the county of Essex and London on the other, will be constructed by such of the competing lines as shall be approved of by Parliament. By this line, therefore, it is proposed to bring the agricultural trade of Harleston, Bungay, Beccles, and the neighbourhood, and the commercial parts of Lowestoft and Yarmouth, in immediate communication with the northern and southern districts of Norfolk, Suffolk, Essex, and Middlesex, and, by means of the Norwich and Brandon Railway, with the northern and western districts of the kingdom. The engineer is Captain W. S. Moorson.

**Norwich and Brandon Railway.**—There are four thousand persons at present employed on the Norwich and Brandon Railway, 2,700 of whom are labourers and excavators. In the neighbourhood of Eccles and Attleborough the

greatest activity is observable, and workmen are employed night and day to facilitate the completion of the bridges in that vicinity. —*Norwich Mercury.*

**Railways and the Iron Trade.**—In his evidence before the Select Committee on Railways, last session, Mr. Hudson stated that in the case of the York and North Midland Railway, of which he has been chairman from the first, the price of the iron used was 11*l.* 10*s.* per ton; whereas, in the case of the Newcastle and Darlington line, which, it will be remembered, owes its existence mainly to Mr. Hudson's exertions, the price was only 6*l.* 5*s.* per ton, the cost of delivery being in favour of the York line. Mr. Hudson added, that for forty-nine miles of a single line of railway, 4,500 tons of iron are required. —*Railway Record.*

## Correspondence.

## ARTESIAN WELLS.

TO THE EDITOR OF THE BUILDER.

SIR,—The propriety of forming artesian wells within the boundaries of the metropolis, in order to supply the inhabitants with warm water for public baths and other purposes, having been mooted in the *Times* and *Athenæum*, permit me to offer, through the medium of your valuable journal, a few observations thereon.

The London basin, particularly that part denominated the valley of the Thames, consists of beds of clay, sand, and gravel, resting on cavernous chalk strata; it is the grand receptacle of the drainage of the upper lands, of periodical rains, and of waters percolating through beds, over, or through which, the Thames flows; and, consequently, previous to the change produced by civilization, it was nothing better than a morass fringed by forests.

The rapid spread of this noble city, and the great attention paid to draining the subsoil has naturally had the effect of reducing the periodical supply of water to narrower bounds, and confining it in many districts to the lower beds; but still we have vast depositories in the chalk beds, and the covering-soil is more or less saturated with water. Now, supposing the requisite number of artesian wells to be formed, the immense supply daily required for the wants of the metropolis would soon exhaust these internal reservoirs, and also drain the middle and upper beds; for every drop of water abstracted therefrom would, by passing into the river, be permanently lost to them. This general drainage of the strata may be considered a benefit, by those who scarcely look beyond the surface of things; and geologists, in particular, lay great stress on the necessity of drainage, which is good so far as applied to extensive areas not built over as London is.

Nearly the whole of London rests on the upper clay bed, and this clay having great absorbing powers, while it often renders underlying beds impervious to water, is strong, and possesses its cohesive powers only so long as it retains a sufficiency of moisture; remove this, it shrinks, cracks in innumerable directions, and becomes dangerous to heavy masses of bricks and mortar super-imposed upon it. It is from this cause that so many foundations of new buildings sink or partially give way almost as soon as the superstructure is raised, drainage taking place after the work is completed, instead of proper attention having been paid to drainage beforehand.

I have no doubt in my own mind that if the lower beds on which London rests were drained, as proposed, by artesian wells, a vast deal of mischief would arise from the general or local contraction of clay beds, occasioned by the lower as well as the subsoil drainage; and the cavernous chalk, deprived of its support, would in many places fall in, and occasion a corresponding depression of the surface. Were the subsoil and strata beneath, on which vast masses of building are disposed, thoroughly drained by all the appliances of art, much good might result, and greater stability be insured to the super-imposed masses; but, when a city like London rests on a bed of clay, the tenacity and strength of which depends upon its preservation of a certain degree of moisture, we ought to pause ere we give way to plans which in the end, in consequence of there being an *exhaustible* (not inexhaustible supply) of water, would recoil upon the pro-

jectors, and lay the seeds of great destruction of property.

Among the plans proposed for securing buildings from partially sinking, it is recommended to dig pits in the clay where foundations are intended, and to fill them in with sand well rammed in; but what, I ask, will become of the well-rammed sand when the clay cracks in every direction, so soon as it is deprived of its supply of moisture by general drainage of the subsoil and building thereon? Why, the sand would immediately disappear, together with the portion of building resting on them. It is true, the Romans sometimes used sand as a support for their foundations, but this applied only to thoroughly dry soil, in which no danger like this could possibly be apprehended. M.

Chelsea, October, 1844.

## LAND-SLIP AT THE CUSTOM-HOUSE QUAY, DUBLIN.

SIR,—It is to be hoped that some of your Irish correspondents will give us a professional account of the late land-slip on the Custom-house quay, and also the imagined causes of the accident, as well as the means resorted to for preventing further damage. It is also reported in the papers that fears are expressed for the safety of the Custom-house itself; perhaps we may learn from the same channel what danger is apprehended in that quarter. Some years since, I remember that great alarm existed on account of the Government warehouses, either at Sheerness or Chatham, being in a very dangerous state through the ruinous state of their foundation, and it was then contemplated to pull down and rebuild them, but Government was saved that expense through the talent of some professional person, who cut away the old foundations, &c. &c. Could you, or any of your very clever and obliging correspondents, furnish the information of the means resorted to on that occasion, as such knowledge at the present time might not only be interesting, but very important.

I think the following accounts amusing at the present time.

Monsieur Gautier relates the following:—Fortifications being built by order of the king (either in the Poles of Oléron, or Rhe), one face of the wall fell, or rather sunk down, notwithstanding it was built on a bank of rock, because the said rock had a hollow underneath that was not or could not be discovered.

Monsieur Blondel also relates that the vast walls of the church of Val de Grace sunk in on one side, though built upon a (supposed) good foundation, because there were underneath large hollows, which had been made in former times for taking out stones some fathoms lower, there having been a quarry there.

The supposed cause of the fracture of the dome of St. Peter's at Rome is the faulty state of the foundation, though M. Angelo caused the same to be laid with all possible caution. The damage arises, it is said, through the following:—the waters of a subterranean spring which run down from the high mountains of the Vatican and the Janiculum, have washed the foundations of this huge edifice.

I remain, Sir,

Yours very obediently,

Oct. 23, 1844.

OFFICINATOR.

## ST. THOMAS'S NEW CHURCH, WINCHESTER. ARCHITECTURAL COMPETITION.

SIR,—I cannot but help remarking how very much to the letter your prophecy has been fulfilled relating to the competition for the new church of St. Thomas, in Winchester, which was the subject of your leading article a few numbers back.

There were in all about fourteen competitors who exhibited designs, and from this number three were selected. The advertisement for plans, as you are aware, restricted architects to the sum of four thousand pounds, as being the outside of the contemplated expenditure, and as regards accommodation, 1,000 sittings were to be provided upon the floor of the church.

The design which the committee have adopted, or rather the toy which capitulates them, is by a Mr. Webb, of Camden Town, according to the signature, although apparently the property of Messrs. Elmsley, and Co., one of that firm having had an interview with the committee; and although he does not lead the committee to understand that they are to have